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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/679,801	10/06/2003	J. Nelson Wright	34114-8007US1	3732
25096	7590	03/20/2007		
PERKINS COIE LLP PATENT-SEA P.O. BOX 1247 SEATTLE, WA 98111-1247			EXAMINER KISH, JAMES M	
			ART UNIT	PAPER NUMBER
			3737	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/679,801

Applicant(s)

WRIGHT ET AL.

Examiner

James Kish

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 20 recites the limitation "the objective function" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

2. Claims 1-41 and 62-71 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention is stated as "A computer-based method." These claims should be re-written in the proper form, such as, "A computer readable medium configured to..." or "A computer readable medium encoded to perform..."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6, 11-16, 21, 42-45, 48-53, 56-59, 61-63, 65 and 67-71 are rejected under 35 U.S.C. 102(b) as being anticipated by Gilbert (US Patent No. 5,731,996).

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Gilbert discloses a processing method and apparatus for dipole moment detection and localization. A set of actual magnetic field measurements of a magnetic dipole is collected using a plurality of sensors, then a location for the dipole is hypothesized. A set of estimated magnetic field measurements is determined that would be formed by a dipole at the hypothesized location. The actual field measurements are compared with the estimated field measurements. This is repeated for different hypothesized locations. See column 2, lines 55-65 and column 4, lines 5-25, as well as Figure 2. The filtering steps 28 and 29 can account for reliability issues as well as interference within the area to be measured. This processing method and apparatus may be used with any system intended to passively detect, locate and classify objects using their magnetic fields (column 3, lines 19-21). However, for intensive purposes and in light of the examples for use of the system and method (i.e. personal weaponry detection systems), the marker as claimed can be interpreted as a firearm that is holstered, or affixed, to a person's side. See Equation [13] at column 5 and Equation [18] at column 6 for the objective function and spatial offset, respectively.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1-3, 5-12, 14-20, 42-51, 53-56, 58-60 and 62-71 are rejected under 35 U.S.C. 102(e) as being anticipated by Govari (US Patent No. 6,484,118). Govari discloses a system for determining the position of a medical device having a sensor comprising a plurality of radiator elements. The method comprises a calibration step involving defining a mapping volume within a generated magnetic field. A sensor is moved according to the vertices of a cube and the entire mapping volume comprises a plurality of cubes (column 3, line 48 through column 5, line 6). Also see column 18, line 5 through column 20, line 43 for descriptive analysis of the calibration steps, as well as Figure 3. More specifically, see column 19, lines 17-30. For sub-dividing, see column 20, lines 33-36. The system also calculates predicted magnetic fields at estimated positions and orientations (column 9, lines 42-54). See column 13, lines 25-38 for discussion on reliability weights. A least squares of a Jacobian are utilized within the methods of the system (column 14, lines 27-60). See column 21 through column 24 for discussion of sensing while an object produces interference within the mapping volume. The method repeats until an error limit substantially reaches zero.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert in view of Govari, further in view of any of Montean (US Patent No. 4,745,401), Fabian (US Patent No. 5,057,095) and/or Mate et al. (US Patent App. No. 2002/0193685). Gilbert discloses a processing method and apparatus for dipole moment detection and localization. A set of actual magnetic field measurements of a magnetic dipole is collected using a plurality of sensors, then a location for the dipole is hypothesized. A set of estimated magnetic field measurements is determined that would be formed by a dipole at the hypothesized location. The actual field measurements are compared with the estimated field measurements. This is repeated for different hypothesized locations. See column 2, lines 55-65 and column 4, lines 5-25, as well as Figure 2. However, this process iterates through all locations within a measurement area. Govari teaches a system for determining the position of a medical device having a sensor comprising a plurality of radiator elements. The method comprises a calibration step involving defining a mapping volume within a generated magnetic field. A sensor is moved according to the vertices of a cube and the entire mapping volume comprises a plurality of cubes (column 3, line 48 through column 5, line 6). Also see column 18, line 5 through column 20, line 43 for descriptive analysis of the calibration steps, as well as Figure 3. More specifically, see column 19, lines 17-30. For subdividing the mapping volume, see column 20, lines 33-36. See column 13, lines 25-38 for discussion on reliability weights. See column 21 through column 24 for discussion of sensing while an object produces interference within the mapping volume. The method repeats until an error limit substantially reaches zero. It would have been obvious to

one having ordinary skill in the art at the time the invention was made to incorporate the calibration method taught by Govari with the method and apparatus of Gilbert in order to reduce examination time.

Gilbert suggests that the processing method and apparatus may be used with any system intended to passively detect, locate and classify objects using their magnetic fields (column 3, lines 19-21). While not explicitly stating that a resonating magnetic circuit is incorporated into the object to be sensed, it is well known in the magnetic localization art to use such a marker. In Montean, see column 5, lines 15-27. In Fabian, see column 4, lines 35-39. In Mate, see paragraphs 36-38.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Kish whose telephone number is 571-272-5554. The examiner can normally be reached on 8:30 - 5:00 ~ Mon. - Fri..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 571-272-4956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JMK


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